

# APPARATUS AND METHODS FOR OPTIMIZING REACTOR CORE COOLANT FLOW DISTRIBUTORS

## Abstract of Disclosure

A nuclear reactor core is provided that includes a plurality of fuel assemblies. In an exemplary embodiment, each fuel assembly includes a main coolant flow channel having an inlet. The plurality of fuel assemblies are arranged into at least three regions within the core. The flow channels are configured so that the flow of coolant through the main coolant flow channels of the fuel assemblies located in a particular region are substantially the same, and that the coolant flow through the fuel assemblies in each region is different from the coolant flow through the fuel assemblies in each other region.